

ISICS Technology Committee Recommendation for VCALL10

This document addresses the use VCALL10 as an interoperability channel in PSAPs with VHF only capabilities. It will also discuss the history of existing systems that will be retired in Iowa in the year 2020 and possibilities, going forward, for PSAPs with VHF only systems

PSAPs who plan to coordinate and license VCALL10, should refer to the most recent version of the NIFOG handbook to ensure programming of correct frequencies and CTCSS tones. The NIFOG information can be located at <https://www.cisa.gov/publication/fog-documents> or <https://www.cisa.gov/sites/default/files/publications/NIFOG%20Ver%201.6.1A.pdf>

In October 2020, Iowa DPS plans to retire all 31 VHF LEA sites that cover the State of Iowa.

These sites operate on 3 different repeater output transmit frequencies and 3 different input receiver frequencies.

Depending on the location of the PSAP, Mobiles and towers, users were required to program a specific transmit and receive frequency into their radio. Some users such as DPS would have programmed all 3 sets into their mobile unit(s).

Area 1 PSAP and mobile users programmed 154.770MHz for transmit and 155.790MHz for receive

Area 2 PSAP and mobile users programmed 154.890MHz for transmit and 155.685MHz for receive

Area 3 PSAP and mobile users programmed 154.800MHz for transmit and 155.700MHz for receive.

Not only were these frequencies located accordingly throughout the State, but they were also assigned specific CTCSS tones as well, to avoid some level of interference from each other.

These sites were used as a form of mutual aid for public safety to enhance coverage for those users who would experience reduced coverage by the use of conventional simplex channels.

With the advent of the new ISICS P-25 LMR platform, and on-going expense to maintain these LEA systems, the need to keep these systems alive is not necessary.

Retiring the 31 LEA sites, although, could create a disadvantage for those agencies who wish to remain on VHF operating systems. It is known that most agencies at one time may have placed VHF directional antennas to gain access to the LEA site for the area they reside in. But they were limited in height and power output levels due to signed agreements with DPS. Also, most agencies would have

had vertical structures in place at some time that would have accommodated the use of VLAW31(155.475MHz). Limitations for this were based more on the individual agency's licensing information although there were operating agreements with DPS as well.

With the possibility of spare radio infrastructure assets still in place, these devices have the potential for being repurposed for VHF interoperability on VCALL10(155.7525MHz).

Since VCALL10 is a simplex non repeated channel, operating in close range of VLAW31 and LEA channels, users could reprogram base stations that operated on a LEA channel with little or no extra tuning of transmitters or receivers. There would be no need for band pass-band reject filters and the use of any pass or notch filters in the antenna system could be removed. This may vary by user depending on their original system set up.

With VCALL10 in a local PSAP operating only on VHF, mobile users of the ISICS system would be able to communicate with these PSAPs under the assumption that the ISICS users followed the ISICS ICS-217A form and programmed those channels into the mobile or handheld device(if technically capable).

PSAPs with both ISICS P-25 LMR and VHF VCALL10 capabilities could establish soft patches through a console which would connect the VHF only PSAP to provide specific levels of communications. This also affords possible patching abilities to the officer in the field.

Depending on the user's equipment capabilities, the deployment of this one channel could create multiple interoperability advantages.

The challenges that come with this, is the potential for frequency coordination issues and it is not known with certainty that obtaining a license for this one frequency is possible in all cases. The PSAP considering such a move would have to assume the risk, if any exists. It is **recommended** that PSAPs considering VCALL10 for use, consult with a frequency coordinator

To that end, it is the **technical recommendation** of the ISICS Technology Committee, that PSAPs within the State of Iowa implement the use of VCALL10(155.7525MHz) for use.